What is claimed is:

1. A transparent conductive film comprising a transparent plastic film, a gas barrier layer and a transparent conductive layer, wherein

a refractive index is controlled so that the refractive index continuously or stepwise decreases from a surface of the transparent conductive film having the transparent conductive layer to the other surface of the transparent conductive film.

2. The transparent conductive film of claim 1, wherein

the gas barrier layer and the transparent conductive layer are provided in that order on one surface of the transparent plastic film; and

the refractive index in the gas barrier layer is controlled so that the refractive index continuously or stepwise decreases from a surface being in contact with the transparent conductive layer to a surface being in contact with the transparent plastic film.

3. The transparent conductive film of claim 1, wherein

the transparent conductive layer is provided on one surface of the transparent plastic film;

the gas barrier layer is provided on the other surface of the transparent plastic film; and

the refractive index in the gas barrier layer is smaller than the refractive index in the transparent plastic film.

4. The transparent conductive film of claim 1, wherein the gas barrier layer comprises at least two metal elements.

5. A transparent conductive film comprising a transparent plastic film, gas barrier layer A, gas barrier layer B and a transparent conductive layer, wherein

gas barrier layer A and the transparent conductive layer are provided in that order on one surface of the transparent plastic film;

gas barrier layer B is provided on the other surface of the transparent plastic film; and

Inequation (1) is satisfied, provided that a refractive index in the transparent conductive layer is designated as n1, a refractive index in gas barrier layer A is designated as n2, a refractive index in the transparent plastic film is designated as n3 and a refractive index in gas barrier layer B is designated as n4.

Inequation (1)

$$n1 \geq n2 \geq n3 \geq n4$$

wherein $n1 > n4$.

6. The transparent conductive film of claim 5, wherein gas barrier layer A or gas barrier layer B comprises at least two metal elements.

7. The transparent conductive film of claim 1, wherein Tg (a glass transition temperature) of the transparent plastic film is 180°C or more.

8. The transparent conductive film of claim 1, wherein the transparent plastic film comprises a cellulose ester.

9. A method to manufacture the transparent conductive film of claim 1, wherein

at least one of the layers selected from the group consisting of the gas barrier layer, gas barrier layer A and the gas barrier layer is formed by means of a plasma CVD method.

10. The method of claim 9, wherein

the plasma CVD method is carried out under an ambient pressure or under a near ambient pressure.

11. The method of claim 9, wherein

the plasma CVD method comprises a film forming process in which a high frequency voltage in the range of 10 kHz to 2500 MHz is applied and an electric power in the range of 1 W/cm^2 to 50 W/cm^2 is supplied.

12. The method of claim 11, wherein

the high frequency voltage is obtained by superimposing an alternating voltage of a frequency range of 1 kHz to 1 MHz and an alternating voltage of a frequency range of 1 MHz to 2500 MHz.

13. An organic electroluminescent element comprising the transparent conductive film of claim 1 having thereon organic electroluminescent element constituting layers.

14. The transparent conductive film of claim 5, wherein Tg (a glass transition temperature) of the transparent plastic film is 180°C or more.

15. The transparent conductive film of claim 5, wherein the transparent plastic film comprises a cellulose ester.

16. A method to manufacture the transparent conductive film of claim 5, wherein

at least one of the layers selected from the group consisting of the gas barrier layer, gas barrier layer A and the gas barrier layer is formed by means of a plasma CVD method.

17. An organic electroluminescent element comprising the transparent conductive film of claim 5 having thereon organic electroluminescent element constituting layers.